

AMENDMENTS TO THE CLAIMS

What is claimed is:

1. (Previously Presented) A composition for forming a combined conversion and lubricating coating on a metal substrate with which the composition is brought into contact, the composition comprising:

at least one oxyethylated aliphatic alcohol whose aliphatic hydrocarbon moiety contains 18 or more carbon atoms in an amount of about 0.5 to about 15 wt% of the composition;

dissolved phosphate anions having a concentration of at least 0.2 wt% and not more than about 20 wt% of the composition; and

a component selected from the group consisting of lithium salts, sodium salts, and calcium salts of fatty organic acids, wherein anions of the fatty organic acids include at least 10 carbon atoms, and cations are selected from the group consisting of sodium, lithium, and potassium; said component present in an amount, measured as its stoichiometric equivalent as lithium stearate with the stoichiometry being based on equal numbers of carboxylate anions, such that said component has a ratio to said at least one oxyethylated aliphatic alcohol that is at least 0.2:1.0 and not more than 10:1.0.

2. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein the oxyethylated aliphatic alcohol is produced by condensing ethylene oxide with at least one primary straight chain aliphatic monoalcohol having at least 18 carbon atoms.

3. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein the oxyethylated aliphatic alcohol has a concentration of at least 0.5% of the composition.

4. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein oxyethylene units comprise at least 20% of the total mass of the oxyethylated aliphatic alcohol.

5. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein the phosphate anions have a concentration of between about 0.99% - 1.9% of the composition.

6. (Previously Presented) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein:
said component selected from the group of lithium salts, sodium salts, and calcium salts of fatty organic acids, is a lithium salt.

7. (Previously Presented) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising at least one inorganic boron containing compound in an amount effective to stabilize the pH value of the composition, the at least one inorganic boron containing compound being selected from the group consisting of inorganic boron containing acids and salts of inorganic boron containing acids, the ratio of the boron to the at least one oxyethylated aliphatic alcohol-being not less than 0.002:1.0.

8. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising at least one agent for adjusting

Serial No. 10/789,225

Art Unit: 1793

the pH of the composition selected from the group consisting of acidifying agents and alkalinizing agents, the pH value of the composition being at least 2.0.

9. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising an organic corrosion inhibitor, the organic corrosion inhibitor comprising a primary inhibitor and a secondary inhibitor, the primary inhibitor being selected from the group consisting of non-sulfur-containing organic azole compounds and the secondary inhibitor being selected from the group consisting of organic azoles that contain mercapto moieties.

10. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1, further comprising a surfactant in an amount effective to promote uniform application of the composition to the substrate.

11. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising an anti-foam agent in an amount effective to prevent excessive foaming.

12. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising a phosphate conversion coating accelerator, the accelerator being selected from the group consisting of: 0.3 to 4 grams of chlorate ions per liter of the total coating composition; 0.01 to 0.2 g/l of nitrite ions; 0.05 to 2 g/l of m-nitrobenzene sulfonate ions; 0.05 to 2 g/l of m-nitrobenzoate ions; 0.05 to 2 g/l of p-nitrophenol; 0.005 to 0.15 g/l of hydrogen peroxide in free or bound form; 0.1 to 10 g/l of hydroxylamine in free or bound form; and 0.1 to 10 g/l of a reducing sugar.

13. (Original) The composition for forming a combined conversion and

Serial No. 10/789,225

Art Unit: 1793

lubricating coating claimed in claim 1 wherein the at least one oxyethylated aliphatic alcohol contains an aliphatic hydrocarbon moiety having 30 to 60 carbon atoms per molecule.

14. (Original) The composition for forming a combined conversion and lubricating coating claimed in claim 1 wherein oxyethylene units comprise 30 to 70% of the total mass of the oxyethylated aliphatic alcohol.

15-17. (Cancelled)

18. (Previously Presented) The composition for forming a combined conversion and lubricating coating claimed in claim 1 further comprising:

at least one inorganic boron containing compound selected from the group consisting of inorganic boron containing acids and salts of inorganic boron containing acids, the ratio of the total amount of boron to the at least one oxyethylated aliphatic alcohol being not less than 0.002:1.0 and not more than 1.0:1.0;

a phosphate conversion coating accelerator, the accelerator comprising a source of hydroxylamine in an amount that corresponds stoichiometrically to an amount of hydroxylamine sulfate that is at least 0.02 and not more than 1.0 wt %.

19. (Previously Presented) The composition for forming a combined conversion and lubricating coating claimed in claim 18 further comprising m-nitrobenzene sulfonate anions in an amount, measured as its stoichiometric equivalent as sodium m-nitrobenzene sulfonate, that is at least 0.02 wt % and is not more than 1.0 wt%.